

November 26, 2019

Pooja Nagrath
David J. Powers & Associates, Inc
1871 The Alameda, Suite 200
San Jose, CA 95126

Dear Ms. Nagrath,

The purpose of this letter is to inform you of the results of the biological reconnaissance performed on August 12, 2019 along the proposed route of a new 6.6 mile sewer trunk line (Joint Sewer Relief Trunk from Renz to Highland Project, hereafter “Project”) in the City of Gilroy and unincorporated Santa Clara County, California. The assessed area (“Study Area”; see Attachment A for Study Area location map) is linear and land uses within this area are Rural, Neighborhood Commercial, Planned Development, Recreation, and Urban Medium and Urban High Density Residential. Local environmental regulations reviewed in this document are focused on the City of Morgan Hill.

The site visit conducted on August 12 was to assess the Study Area for potential sensitive habitat areas, including wetlands and riparian habitats and to determine the potential effects of the project on sensitive plant and animal species that are included on lists prepared by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and California Native Plant Society (CNPS). A complete list of observed wildlife species is provided in Attachment B. Site photographs are provided in Attachment C. A summary of special-status species documented in the California Natural Diversity Database (CNDDDB; CDFW 2019) in the vicinity of the Study Area is provided in Attachment D.

Project Description

Project Location

The proposed Project alignment is located in the unincorporated Santa Clara County in the San Martin planning area and the City of Gilroy. Project limits include Highland Avenue to approximately Cohansey Avenue (within County of Santa Clara) and Cohansey to Renz Lane (within City of Gilroy). This relief sewer trunk is being constructed jointly by the City of Morgan Hill and the City of Gilroy in three discrete segments. The first segment has been constructed by the City of Gilroy and extends from Renz Lane in Gilroy to the SCRWA wastewater treatment plant. The second segment has been constructed by Morgan Hill and extends from the intersection of California Avenue and Monterey Highway southerly to the intersection of Harding Avenue and Highland Avenue. The third segment would be constructed by Morgan Hill and would connect together the first and second segments by extending from Renz Lane to Highland Avenue. A detailed description of the relief trunk routing is included below.

The Project starts at the intersection of Harding Avenue and Highland Avenue; from this location the line extends approximately 2000 feet east on Highland Avenue to Monterey Highway. The line will turn south onto Monterey Highway and extend south along Monterey Highway

approximately 3.4 miles to Las Animas Avenue. This portion of the alignment will be located within existing County road right-of-way and installed by means of open trench construction. From the intersection of Monterey Highway and Las Animas, the sewer will continue east on Las Animas for approximately 1,750 feet to Murray Avenue, crossing the Union Pacific Railroad (UPRR) tracks that run parallel to Monterey Highway. The line will continue south on Murray Avenue for approximately 1.5 miles to Chestnut Street. Along Murray Avenue, the sewer will cross West Branch Llagas Creek and Leavesley Road (SR 152). The majority of this portion of the alignment will be constructed within existing City of Gilroy road right-of-way by means of open trench construction. The crossings of the UPRR, West Branch Llagas Creek, and SR 152 will be installed by trenchless construction methods. Depending on the depth of the existing facilities, siphons may be required for one or more of these trenchless crossings. From the southern end of Murray Avenue, the trunk sewer will follow Chestnut Street west then south approximately 0.5 miles, crossing Lewis Street and a branch of Miller Slough, to East 7th Street (formerly Old Gilroy Street). This portion of the alignment will be located primarily within existing City of Gilroy road right-of-way and installed by means of open trench construction. The crossing of Miller Slough will utilize trenchless construction methods.

The trunk sewer will continue approximately 0.2 miles east by way of East 7th Street or Old Gilroy Street to Highway 101. This portion of the alignment will be located within City of Gilroy road right-of-way and City of Gilroy property, and an easement through private property and installed by open trench construction. The trunk sewer will continue east approximately 375 feet underneath Highway 101. The pipe will be located within Caltrans right-of-way and be installed using trenchless construction methods. The highway crossing will terminate on Renz Lane, east of Highway 101, either within an easement on private property, or within City of Gilroy right-of-way. From the termination of the Highway 101 crossing, the alignment will continue approximately 1,900 feet southeast along Renz Lane to the start of the relief trunk previously constructed by the City of Gilroy. This portion of the pipeline will be installed by open trench construction either within an existing or new easement on private property. The pipeline will terminate with the connection to the City of Gilroy relief trunk.

Description of work

The proposed trunk sewer alignment would be located mostly within the existing roadway right-of-way, plus a few new utility easements. Generally, the trunk line would be located in the paved roadway, unimproved private roadway, two highway crossings, one railway crossing, and two waterway crossings. The trunk sewer will consist of 36-inch diameter pipe installed by open trench and trenchless construction methods. The pipes will be installed at a depth that provides approximately four (4) to fifteen (15) feet of cover, on average. Deeper or shallower installation may be required to accommodate other existing utilities and crossings of railroad tracks, waterways, and major highways.

The sewer trunk line will cross waterways at two locations: Murray Avenue and at Chestnut Street. At the West Branch Llagas Creek crossing on Murray Avenue, the proposed pipeline would likely be installed under the creek by guided auger-boring to avoid disturbance to the creek. This may result in a siphon crossing in order to meet minimum clearance requirements to avoid damaging the creek bed. This construction method would restrict construction activities to the street right-of-way on either side of the crossing and will not require activities within the creek itself. At the Miller Slough crossing on Chestnut Street, the proposed pipeline would likely be installed by guided auger-boring or horizontal directional drilling to avoid disturbance to the slough. This may result in a siphon crossing in order to meet minimum clearance requirements

to avoid damaging the slough bed. This construction method will not require activities within the slough or adjacent riparian areas.

The contractor would restore all existing landscaping and hardscape (concrete or AC walkways, paths, or other surface features) disturbed by the work activities to the preconstruction conditions acceptable to the City of Morgan Hill and the appropriate local jurisdiction or landowner. If necessary, landscape restoration would be performed under direction of a licensed landscaping subcontractor. Special precautions would be taken if the limited excavation activities encounter roots of mature trees in the work area. Tree removal is not anticipated.

Survey Methods

A site visit to the Study Area was made on August 12, 2019. Prior to the site visit, a review of the following literature and database searches was conducted to determine the potential for sensitive biological communities (e.g., wetlands) and special-status species:

- Gilroy, Mt. Madonna, and Chittenden 7.5-minute quadrangle (United States Geological Survey [USGS] 2015);
- California Natural Diversity Database (CNDDDB; CDFW 2019);
- California Native Plant Society Electronic Inventory (CNPS 2019);
- USFWS Information for Conservation and Planning (IPaC) search (USFWS 2019b);
- Aerial photographs (Google Earth 2019)

During the site visit, the Study Area was examined for: (a) potentially sensitive habitat areas and (b) the presence and potential to support special-status plant and wildlife species, and (c) indicators of wetlands, waters, and areas containing an ordinary high water (“OHW”) mark.

Results

The approximately 6.6-mile sewer alignment is located within roadway right-of-way and utility easements in the City of Gilroy and unincorporated Santa Clara County, California. The Study Area is primarily paved roadway or associated right-of-way. The sewer alignment crosses waterways in two locations: Miller Slough at Chestnut Street and West Branch Llagas Creek at Murray Avenue. The southern half of the Study Area is primarily bordered by residential homes and commercial businesses. The north half of the Study Area is bordered by low density single-family dwellings and agricultural fields and orchards. In the greater landscape context, the Study Area traverses from a more developed portion within the City of Gilroy to a less developed, more agricultural setting, in Santa Clara County.

Vegetation Communities

The Study Area is primarily composed of developed/landscaped areas, and ruderal/disturbed areas, both of which are not considered sensitive vegetation communities. The developed/landscaped areas are located throughout the 6.6-mile sewer alignment and consist of paved roadway, paved parking lots, and ornamental landscape plantings. Ruderal/disturbed areas are located in the southernmost portion of the Study Area and appear to have been recently disturbed by construction and/or maintenance activities. Ruderal areas are dominated by non-native invasive grasses and herbaceous plants including oat (*Avena* sp.), riggut brome (*Bromus diandrus*), yellow star thistle (*Centaurea solstitialis*), chicory (*Cichorium intybus*), and prickly lettuce (*Lactuca serriola*).

Wetland and Waters of the US/State

One potentially jurisdictional non-wetland water feature was observed within the Study Area. The Study Area crosses waterways in two locations: Miller Slough at Chestnut Street and West Branch Llagas Creek at Murray Avenue. Miller Slough is a freshwater slough and West Branch Llagas Creek is a freshwater creek. Both are considered sensitive vegetation communities as they are seasonally inundated waterways connected to the Pajaro River. The waterways at both locations are located in a constructed channel with a defined bed and bank and visible signs of inundation on historic and current imagery (Google Earth 2019). Miller Slough at the Chestnut Street crossing is approximately 14 feet wide with a natural bottom substrate. The slough main channel was dry during the site visit and consisted of compacted soil and trash/debris build-up. Vegetation in the channel consisted of Dallis grass (*Paspalum dilatatum*), chicory, Italian ryegrass (*Festuca perennis*), and Italian thistle (*Carduus pycnocephalus*). West Branch Llagas Creek at the Murray Avenue crossing is approximately 80 feet wide with a rip rap bottom substrate underneath Murray Avenue and a natural bottom substrate on either side. This portion of the creek was also dry during the site visit. Observed facultative vegetation within the slough consisted of cocklebur (*Xanthium strumarium*), curly dock (*Rumex crispus*), and tall cyperus (*Cyperus eragrostis*). Riparian vegetation was absent and the banks at the locations of the crossings were dominated by non-native grasses.

Special-Status Species

Special-Status Plant Species

Based upon a search of the databases listed above, 16 special-status plant species have documented occurrences within the Gilroy, Mt. Madonna, and Chittenden USGS quadrangle and the vicinity of the Study Area. Of the 16 special-status species documented, all are either unlikely or have no potential to occur within the Study Area for one or more of the following reasons:

- The Study Area has been repeatedly and intensively altered from a natural state thereby eliminating the seedbank or diminishing establishment of the special-status plant(s);
- The Study Area does not contain hydrologic conditions (e.g., vernal pools, marshes and swamps) necessary to support the special-status plant(s);
- The Study Area does not contain edaphic (soil) conditions (e.g., serpentine substrate) necessary to support the special-status plant(s);
- The Study Area does not contain vegetation communities (e.g., chaparral, vernal pools) associated with the special-status plant(s);

Based on a lack of suitable habitat and the recent history of soil and vegetation disturbance, none of the 16 special-status plant species have the potential to occur in the Study Area. No special-status plant species were observed during the site visit.

Special-status Wildlife Species

Of the 25 special-status wildlife species documented in the vicinity of the Study Area, most are excluded from the Study Area based on a lack of habitat features. Features not found within the Study Area that are required to support special-status wildlife species include:

- Vernal pools
- Aquatic habitat (e.g. streams, rivers or ponds)

- Old growth redwood or fir forest
- Serpentinite soils to support host plants
- Sandy beaches or alkaline flats
- Caves, mine shafts or abandoned buildings
- Wildlife movement corridors

The absence of such habitat features eliminates components critical to the survival or movement of most special-status species found in the vicinity. Species like California red-legged frog (*Rana draytonii*) and California tiger salamander (*Ambystoma californiense*) are known to occur in the open spaces in the vicinity. However, suitable aquatic habitat and movement corridors connecting the Study Area to outside source populations are absent, precluding these species from the Study Area. In addition, the bulk of the Study Area is located within residential or light industrial urban development with no suitable habitat for these species. It should be mentioned that other portions of West Branch Llagas Creek support the south-central California coast distinct population segment of steelhead (*Oncorhynchus mykiss*). However, the impacts associated with the Project will occur in a channelized creek location where suitable steelhead habitat is not present. Additionally, the guided auger-boring technique that will be employed during Project work should entirely avoid impacts to the creek bed, meaning no impacts will occur to any fish that could be present during seasonal inundation.

Two special status species have potential to occur in the immediate vicinity of portions of the Study Area: white-tailed kite (*Elanus leucurus*) and burrowing owl (*Athene cunicularia*). White-tailed kite may nest in trees of varying size in open spaces adjacent to the Project Area, and may forage in ruderal and open agricultural areas, chiefly in the portions of the Study Area adjacent to Monterey Highway. Burrowing owl presence is only possible on a small portion of the alignment between Monterey Highway and Murray Avenue on West Las Animas Avenue. Ground squirrels are active in ruderal open spaces on either side of the road in this location, creating possible wintering and breeding habitat for burrowing owl.

Wildlife Corridors

Wildlife movement between suitable habitat areas can occur via open space areas lacking substantial barriers. The terms “landscape linkage” and “wildlife corridor” are often used when referring to these areas. The key to a functioning corridor or linkage is that it connects two larger habitat blocks, also referred to as core habitat areas (Beier 1992, Soule and Terborgh 1999). It is useful to think of a “landscape linkage” as being valuable in a regional planning context, a broad scale mapping of natural habitat that functions to join two larger habitat blocks. The term “wildlife corridor” is useful in the context of smaller, local area planning, where wildlife movement may be facilitated by specific local biological habitats or passages and/or may be restricted by barriers to movement. Above all, wildlife corridors must link two areas of core habitat and should not direct wildlife to developed areas or areas that are otherwise void of core habitat (Hilty et al. 2006).

Landscape linkages and wildlife corridors can reduce the effects of habitat fragmentation by allowing animals to move between core habitats, replenishing depleted populations and, maintaining diversity in the gene pool. Habitat corridors have also been shown to be beneficial in maintaining genetic diversity amongst plant populations (Damshen, et al. 2006). Thus, corridors are important in maintaining species diversity and preventing species extinctions (Hilty et al. 2006, Soule and Terborgh 1999). The presence of barriers to wildlife movement, whether natural or man-made, can result in the isolation of wildlife populations and the fragmentation of

core habitat areas, resulting in a loss of genetic exchange that could affect the long term sustainability of a population (Hilty et al. 2006).

The variables that create a functioning corridor or linkage vary by species due to unique habitat requirements, life histories, size, and movement patterns. Some species, referred to as “corridor dwellers” or “live in” species, live their entire life cycles within corridors or linkages. Some species, particularly flying species, can utilize “stepping stone” dispersal habitats, or closely spaced pockets of habitat that can be used as habitat during dispersal between larger core habitat areas. Because the ideal corridors can vary by species, wildlife movement is typically analyzed based on suitability for several focal species, typically categorized as terrestrial, aquatic, and avian (including bats) species.

The Study Area does not function as a wildlife movement corridor. The extent and density of existing development surrounding the Study Area means that the site does not function as a habitat corridor for the movement of terrestrial wildlife or plants. The distance between viable core habitat areas for terrestrial species is too great, and the intensity of disturbance from traffic along major roads, nighttime lighting, noise, and human presence over that distance is a major deterrent to terrestrial wildlife movement. Additionally, the majority of work that will occur as a result of the proposed Project will take place in already paved areas. As such, any disturbances that would occur are essentially equivalent to existing conditions when considering wildlife movements through the Study Area. The Project will thus have no further impact on wildlife movement than current existing conditions.

Potential Impacts and Mitigation Measures

Analysis of Potential Effects to Sensitive Vegetation Communities, Wetlands and Waters

The Study Area contains two sensitive communities: Miller Slough and West Branch Llagas Creek. Both Miller Slough and West Branch Llagas Creek are seasonally inundated freshwater waterways that drain to the Pajaro River, perennial watercourse. Fill placed within Miller Slough or West Branch Llagas Creek would require a Section 404 permit from the U.S. Army Corps of Engineers (Corps), a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), and a Section 1602 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). The entry and exit locations for the crossings are located above top-of-bank and outside of riparian areas present outside of the Study Area. Depending on the method of crossing employed, high pressures present during drilling can force drilling material to the surface from beneath the ground, an incident known as a “frac-out”. If frac-out occurred, drilling material (typically primarily comprised of bentonite) could enter the bed and/or banks of Miller Slough or West Branch Llagas Creek, requiring entry into the slough to clean up the material. As explained in the project description, the waterway crossings will be designed at a sufficient depth to protect the bed and avoid potential for frac-out. Based on the condition of Miller Slough and West Branch Llagas Creek at the point of crossing, low frequency and duration of flow, and very low probability of frac-out when accounting for design depth, this is considered a less than significant potential impact. No other potential impacts to sensitive communities are likely to occur as a result of the project.

Analysis of Potential Effects to Special-Status Species

Special-Status Plant Species

Based on the highly disturbed nature of the site, and lack of associated natural vegetation communities, the Study Area does not provide suitable habitat for special-status plant species. No impacts to special-status plant species are anticipated as a result of the proposed Project, and no further actions are recommended for special-status plant species.

Special-Status and Non-Special-Status Nesting Birds

Two special-status wildlife species have the potential to occur within the immediate vicinity of the Study Area: burrowing owl (CDFW SSC) and white-tailed kite (CDFW CFP). Non-special-status native birds may also nest on the ground, as well as in trees and vegetation within the Study Area. The nests of such birds are protected under the Migratory Bird Treaty Act (MBTA) as well as by California Fish and Game Codes (CFGC). Due to the location of the majority of the sewer alignment on active paved roads, any species that nest nearby are likely accustomed to a baseline level of disturbance that will not be drastically increased by Project activities. However, if construction begins during the nesting season window, generally February 15 to August 31, nesting birds may be impacted through the removal of nest structures or through localized disturbance sufficient to cause nest abandonment. To avoid and minimize these potential impacts and maintain compliance with the MBTA and CFGC, the following is recommended:

- If construction activities are initiated during the nesting season (February 15 – August 31), a nesting bird survey (including for burrowing owl) should be conducted by a qualified biologist within 14 days prior to the start of construction. In areas of potential burrowing owl habitat, an additional survey should be completed within 48 hours of the start of construction. If nests are present, exclusion buffers appropriate to the species should be established by the qualified biologist to prevent impacts to nesting birds. No work should be completed within the buffers until the biologist determines that young have fledged or the nest becomes inactive.
- If construction activities are initiated outside of the nesting season (September 1 – February 14), pre-construction surveys for over-wintering burrowing owl should be conducted at the portion of the alignment along West Las Animas Avenue between Monterey Highway and Murray Avenue in the City of Gilroy where ground squirrels were observed to be active. Surveys should be conducted within 14 days of the start of construction and assess the immediate vicinity of the Study Area as well as a 250-foot buffer. Surveys should be conducted by a qualified biologist, and assess extant ground squirrel burrows of suitable size for the presence of burrowing owls or signs of burrowing owl occupancy (i.e. whitewash, pellets, feathers). If burrowing owl are discovered within 250 feet of areas of construction disturbance, exclusion buffers appropriate to the conditions present should be established by the qualified biologist. No work should be completed within the buffers until the burrow has been determined abandoned by a qualified biologist.

With the implementation of these measures, the project will result in less than significant impacts to burrowing owl and other nesting bird species.

Analysis of Potential Effects to Wildlife Corridors

The Study Area does not function as a wildlife corridor and no effects to wildlife corridors will result from the proposed Project. No further actions are recommended.

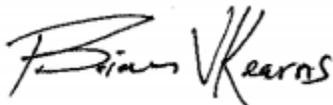
Summary

The Study Area contains two sensitive vegetation communities: Miller Slough and West Branch Llagas Creek. Based on proposed crossing techniques, no impacts to potentially jurisdictional features are proposed. No additional sensitive communities or areas of potential wetlands, non-wetland waters, streams, lakes, ponds, or riparian habitats are present within the Study Area. Based on the highly disturbed nature of the site and lack of associated natural vegetation communities, the Study Area does not provide suitable habitat for special-status plant species. No impacts to sensitive vegetation communities or special-status plant species are anticipated as a result of the Project.

Based on the absence of specific native habitats, lack of specialized habitat features, and previous development in the surrounding areas, the Study Area does not have the potential to support most special-status wildlife species. Two special-status wildlife species, burrowing owl and white-tailed kite, may be present in the vicinity of the Study Area. Burrowing owl could be present within a 300-foot buffer of the Study Area along West Las Animas Avenue between Monterey Highway and Murray Avenue in the City of Gilroy. Although Project activities are not expected to have any direct impacts on sensitive habitat features for burrowing owl, California ground squirrels are active along this portion of the Study Area, which could create burrows that would provide breeding and wintering habitat for burrowing owl. Pre-construction surveys for breeding or wintering burrowing owl are recommended in areas of the Study Area with adjacent active ground squirrels to ensure that no impacts occur as a result of Project activities. Additionally, due to the presence of grasses, trees, and shrubs within and adjacent to the Study Area, birds including white-tailed kite and non-special-status birds may nest within the Study Area. If construction occurs between February 15 and August 31, a nesting bird survey should be conducted prior to initiation of construction to locate active nests and assure compliance with the MBTA and CFGC. Work outside of this time period would not require a survey as it is not expected that nests would be present.

Please contact me if you have any questions.

Sincerely,



Brian Kearns
Wildlife Biologist
kearns@wra-ca.com

Enclosures: References Cited
 Attachment A – Study Area Location Map
 Attachment B – List of Observed Wildlife Species
 Attachment C – Site Photographs
 Attachment D – CNDDDB Search Summary

References

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds.). 2012. *The Jepson Manual: Vascular Plants of California*, 2nd Edition. University of California Press, Berkeley, CA.
- Beier, P. 1992. A checklist for evaluating impacts to wildlife movement corridors. *Wildlife Society Bulletin*. 20:434-440.
- California Department of Fish and Wildlife (CDFW). 2019. California Natural Diversity Database (CNDDB), Wildlife and Habitat Data Analysis Branch. Sacramento. Accessed: June 2016
- California Invasive Plant Council (Cal-IPC). 2019. California Invasive Plant Inventory Database. California Invasive Plant Council, Berkeley, CA. Online at: <http://www.cal-ipc.org/ip/inventory/index.php>. Accessed: June 2016.
- California Native Plant Society (CNPS). 2019. Online Inventory of Rare, Threatened, and Endangered Plants of California. Available at: <http://www.rareplants.cnps.org/>. Accessed: June 2016.
- Damschen, E. I., N .M. Haddad, J.L. Orrock, J.J. Tewksbury, D.J. Levey. 2006. Corridors Increase Plant Species Richness at Large Scales. *Science*. Vol 313 Sept 1, 2006. Pp 1284-1286
- Hilty, J.A., W.Z. Lidicker Jr., and A.M. Merenlender. 2006. *Corridor Ecology*. Pp. 195-198. Island Press, Washington D.C.
- Sawyer, J, T Keeler-Wolf and J Evens. 2009. *A Manual of California Vegetation*. California Native Plant Society, Berkeley, CA.
- Soulé, M.E. and J. Terbough. 1999. Conserving nature at regional and continental scales - a scientific program for North America. *Bioscience* 49:809-817.
- U.S. Fish and Wildlife Service (USFWS). 2019a. National Wetlands Inventory. Available at: <http://www.fws.gov/wetlands/index.html>. Accessed: June 2016.
- U.S. Fish and Wildlife Service (USFWS). 2019b. Information for Conservation and Planning Database. Available online at: <https://ecos.fws.gov/ipac/>. Most recently accessed: June 2016.
- U.S. Geological Survey (USGS). 2015. San Francisco South 7.5 minute topographic map

Attachment A
Study Area Location Map



LEGEND:

-  EXISTING JOINT SEWER TRUNK
-  SOUTH COUNTY REGIONAL WASTEWATER AUTHORITY WASTEWATER TREATMENT PLANT
-  TRUNK SEWER SOUTH OF HIGHLAND
-  TIE-IN TO HARDING AVE RELIEF SEWER TRUNK
-  TIE-IN TO CITY OF GILROY RELIEF SEWER TRUNK

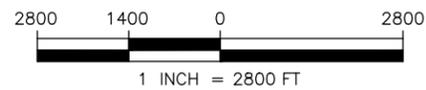


FIGURE 1
CITY OF MORGAN HILL
TRUNK SEWER SOUTH OF HIGHLAND
PROJECT AREA

Attachment B

List of Observed Wildlife Species

Attachment B. Wildlife Species Observed During the August 12, 2019 Site Visit.

Wildlife	
Common Name	Scientific Name
<i>Birds</i>	
Anna's hummingbird	<i>Calypte anna</i>
American crow	<i>Corvus brachyrhynchos</i>
western scrub-jay	<i>Aphelocoma californica</i>
northern mockingbird	<i>Mimus polyglottos</i>
Canada goose	<i>Branta canadensis</i>
Eurasian collared dove	<i>Streptopelia decaocto</i>
red-tailed hawk	<i>Buteo jamaicensis</i>
house finch	<i>Haemorhous mexicanus</i>
mourning dove	<i>Zenaida macroura</i>
<i>Mammals</i>	
California ground squirrel	<i>Otospermophilus beecheyi</i>
<i>Reptiles</i>	
western fence lizard	<i>Sceloporus occidentalis</i>

Attachment C
Site Photographs



Photo 1. Southernmost point of sewer trunk line, on Renz Lane.

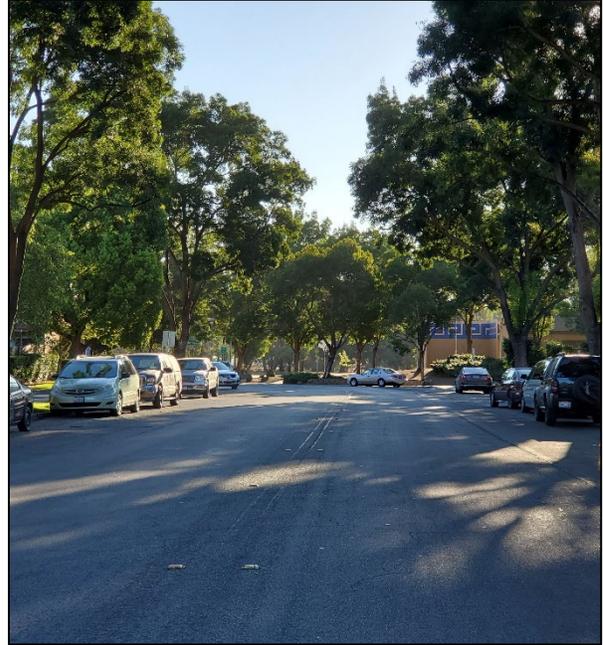


Photo 2. Sewer trunk line route through already paved street surrounded by street trees.

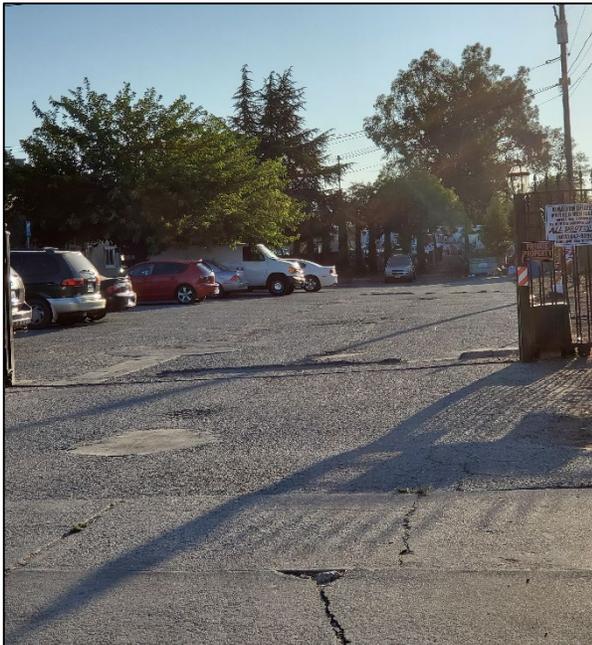


Photo 3. Residential development that sewer line will pass through prior to crossing US 101.

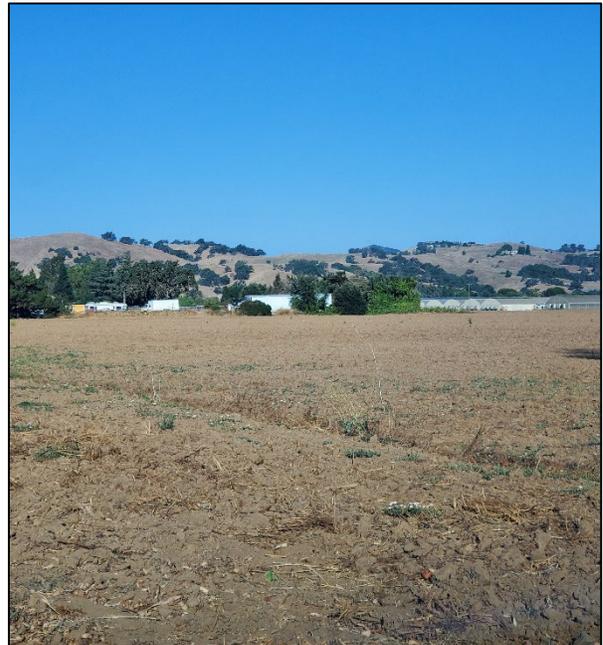


Photo 4. Representative ruderal area where ground squirrels may be present.



Photo 5. Miller slough crossing at Lewis Street



Photo 6. Miller Slough crossing at Lewis Street, showing path of trunk line adjacent to trees.



Photo 7. Miller Slough crossing on Leavesley Avenue, showing current location of sewer line elevated on bridge.

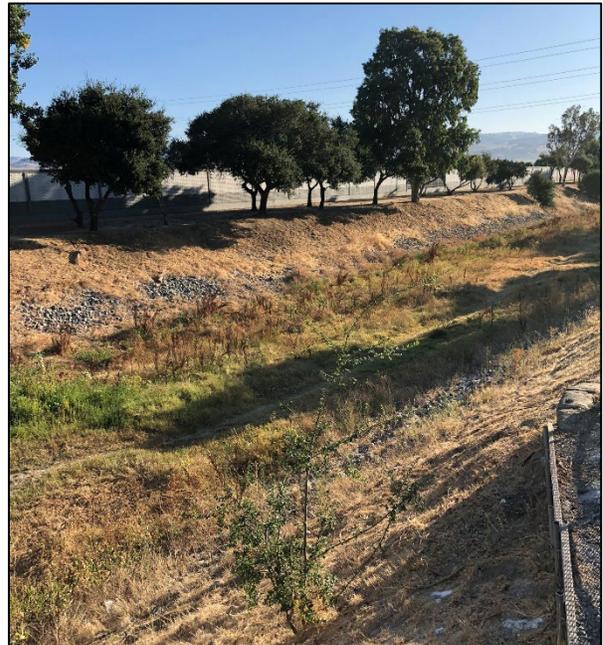


Photo 8. Miller Slough crossing on Leavesley Avenue, showing vegetation in channel.



Photo 9. Ditch on Highland Avenue.



Photo 10. Ditch on Highland Avenue.

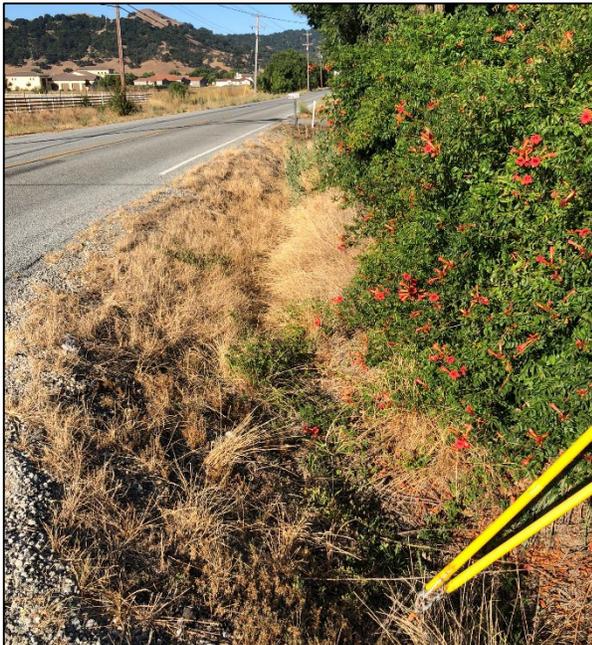


Photo 11. Ditch on Highland Avenue.



Photo 12. Ditch at Harding and Highland.

Attachment D
CNDDDB Search Summary



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Gilroy (3712115) OR Mt. Madonna (3712116) OR Chittenden (3612185)) AND Taxonomic Group (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Adela oplerella</i> Opler's longhorn moth	G2 S2	None None		500 500	14 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Agelaius tricolor</i> tricolored blackbird	G2G3 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	152 320	955 S:3	1	0	0	0	0	2	2	1	3	0	0
<i>Ambystoma californiense</i> California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	170 2,030	1199 S:30	1	12	10	0	1	6	7	23	29	0	1
<i>Aneides flavipunctatus niger</i> Santa Cruz black salamander	G3 S3	None None	CDFW_SSC-Species of Special Concern	350 1,009	78 S:3	0	0	0	0	0	3	2	1	3	0	0
<i>Antrozous pallidus</i> pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	200 200	420 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Aquila chrysaetos</i> golden eagle	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	976 976	321 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Arctostaphylos andersonii</i> Anderson's manzanita	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	1,100 2,081	64 S:5	0	2	1	0	0	2	1	4	5	0	0
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	242 760	1985 S:6	1	1	2	0	2	0	3	3	4	0	2
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	900 1,400	51 S:5	2	3	0	0	0	0	0	5	5	0	0
<i>Bombus caliginosus</i> obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	150 150	181 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus crotchii</i> Crotch bumble bee	G3G4 S1S2	None None		300 300	234 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus occidentalis</i> western bumble bee	G2G3 S1	None None	USFS_S-Sensitive XERCES_IM-Imperiled	350 350	282 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Castilleja rubicundula var. rubicundula</i> pink creamsacs	G5T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	340 340	38 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Cirsium fontinale var. campylon</i> Mt. Hamilton fountain thistle	G2T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	800 800	36 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Dicamptodon ensatus</i> California giant salamander	G3 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	1,300 1,300	234 S:3	0	1	0	0	0	2	2	1	3	0	0
<i>Dudleya abramsii ssp. setchellii</i> Santa Clara Valley dudleya	G4T2 S2	Endangered None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	395 1,000	58 S:11	2	6	2	0	0	1	3	8	11	0	0
<i>Elanus leucurus</i> white-tailed kite	G5 S3S4	None None	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	250 250	180 S:1	1	0	0	0	0	0	1	0	1	0	0



Summary Table Report
California Department of Fish and Wildlife
California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	141 977	1376 S:16	3	2	5	1	0	5	6	10	16	0	0
<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	G5T1 S1	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden		16 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	G5T1 S1	Threatened None	XERCES_CI-Critically Imperiled	500 1,100	30 S:2	0	1	0	0	0	1	1	1	2	0	0
<i>Fritillaria liliacea</i> fragrant fritillary	G2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	700 700	82 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Hoita strobilina</i> Loma Prieta hoita	G2? S2?	None None	Rare Plant Rank - 1B.1	625 800	34 S:4	1	1	0	0	1	1	2	2	3	1	0
<i>Lasiurus cinereus</i> hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		238 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Lavinia symmetricus subditus</i> Monterey roach	G4T2T3 S2S3	None None	CDFW_SSC-Species of Special Concern	570 570	6 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Legenere limosa</i> legenere	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	2,000 2,000	83 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Lessingia micradenia</i> var. <i>glabrata</i> smooth lessingia	G2T2 S2	None None	Rare Plant Rank - 1B.2	320 1,000	44 S:11	4	4	2	0	0	1	2	9	11	0	0
<i>Malacothamnus arcuatus</i> arcuate bush-mallow	G2Q S2	None None	Rare Plant Rank - 1B.2	270 840	30 S:3	0	1	1	0	0	1	2	1	3	0	0
<i>Monolopia gracilens</i> woodland woollythreads	G3 S3	None None	Rare Plant Rank - 1B.2	1,000 1,500	68 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Oncorhynchus mykiss irideus</i> pop. 9 steelhead - south-central California coast DPS	G5T2Q S2	Threatened None	AFS_TH-Threatened	144 400	32 S:3	0	0	0	1	0	2	2	1	3	0	0
<i>Optioservus canus</i> Pinnacles optioservus riffle beetle	G1 S1	None None		120 120	6 S:1	0	0	0	0	0	1	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Penstemon rattanii</i> var. <i>kleei</i> Santa Cruz Mountains beardtongue	G4T2 S2	None None	Rare Plant Rank - 1B.2	1,500 1,500	6 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Phrynosoma blainvillii</i> coast horned lizard	G3G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	350 350	780 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Puccinellia simplex</i> California alkali grass	G3 S2	None None	Rare Plant Rank - 1B.2	200 340	80 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Rana boylei</i> foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	361 1,818	2411 S:7	0	1	1	0	0	5	4	3	7	0	0
<i>Rana draytonii</i> California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	115 2,030	1526 S:32	0	12	8	2	0	10	11	21	32	0	0
<i>Riparia riparia</i> bank swallow	G5 S2	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	125 125	298 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	G2T2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	450 1,000	103 S:9	2	3	1	1	0	2	2	7	9	0	0
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	161 300	590 S:3	1	1	0	0	0	1	1	2	3	0	0
<i>Trifolium hydrophilum</i> saline clover	G2 S2	None None	Rare Plant Rank - 1B.2	150 200	49 S:3	0	0	0	0	0	3	2	1	3	0	0
<i>Vireo bellii pusillus</i> least Bell's vireo	G5T2 S2	Endangered Endangered	IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	120 170	501 S:2	1	0	0	0	0	1	1	1	2	0	0

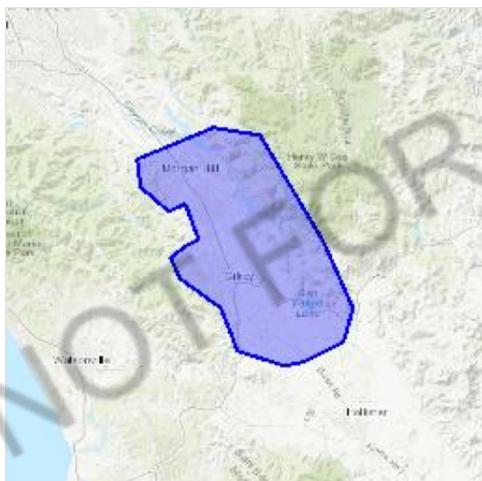
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Benito and Santa Clara counties, California



Local offices

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Ventura Fish And Wildlife Office

 (805) 644-1766

 (805) 644-3958

2493 Portola Road, Suite B
Ventura, CA 93003-7726

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

San Joaquin Kit Fox *Vulpes macrotis mutica* Endangered
 No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/2873>

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Marbled Murrelet <i>Brachyramphus marmoratus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/625	Endangered
San Francisco Garter Snake <i>Thamnophis sirtalis tetrataenia</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5956	Endangered

Amphibians

NAME	STATUS
------	--------

California Red-legged Frog *Rana draytonii* Threatened

There is **final** critical habitat for this species. Your location overlaps the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

California Tiger Salamander *Ambystoma californiense* Threatened

There is **final** critical habitat for this species. Your location overlaps the critical habitat.

<https://ecos.fws.gov/ecp/species/2076>

Santa Cruz Long-toed Salamander *Ambystoma macrodactylum croceum* Endangered

There is **proposed** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/7405>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus* Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/321>

Insects

NAME

STATUS

Bay Checkerspot Butterfly *Euphydryas editha bayensis* Threatened

There is **final** critical habitat for this species. Your location overlaps the critical habitat.

<https://ecos.fws.gov/ecp/species/2320>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi* Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Flowering Plants

NAME

STATUS

Coyote Ceanothus *Ceanothus ferrisiae* Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8440>

Marsh Sandwort <i>Arenaria paludicola</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2229	Endangered
Metcalf Canyon Jewelflower <i>Streptanthus albidus</i> ssp. <i>albidus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4186	Endangered
Santa Clara Valley Dudleya <i>Dudleya setchellii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3207	Endangered
Santa Cruz Tarplant <i>Holocarpha macradenia</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6832	Threatened
Tiburon Paintbrush <i>Castilleja affinis</i> ssp. <i>neglecta</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2687	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Bay Checkerspot Butterfly <i>Euphydryas editha bayensis</i> https://ecos.fws.gov/ecp/species/2320#crithab	Final
California Red-legged Frog <i>Rana draytonii</i> https://ecos.fws.gov/ecp/species/2891#crithab	Final
California Tiger Salamander <i>Ambystoma californiense</i> https://ecos.fws.gov/ecp/species/2076#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

- Allen's Hummingbird** *Selasphorus sasin* Breeds Feb 1 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9637>
- Bald Eagle** *Haliaeetus leucocephalus* Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
<https://ecos.fws.gov/ecp/species/1626>
- Black Skimmer** *Rynchops niger* Breeds May 20 to Sep 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/5234>
- Black Swift** *Cypseloides niger* Breeds Jun 15 to Sep 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/8878>
- Black-chinned Sparrow** *Spizella atrogularis* Breeds Apr 15 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9447>
- Burrowing Owl** *Athene cunicularia* Breeds Mar 15 to Aug 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/9737>
- Clark's Grebe** *Aechmophorus clarkii* Breeds Jan 1 to Dec 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
- Common Yellowthroat** *Geothlypis trichas sinuosa* Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/2084>
- Costa's Hummingbird** *Calypte costae* Breeds Jan 15 to Jun 10
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
<https://ecos.fws.gov/ecp/species/9470>

Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds elsewhere
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere

<p>Song Sparrow <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Feb 20 to Sep 5
<p>Spotted Towhee <i>Pipilo maculatus clementae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243</p>	Breeds Apr 15 to Jul 20
<p>Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910</p>	Breeds Mar 15 to Aug 10
<p>Whimbrel <i>Numenius phaeopus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483</p>	Breeds elsewhere
<p>Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 10
<p>Yellow-billed Magpie <i>Pica nuttalli</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726</p>	Breeds Apr 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that

- week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
 - The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

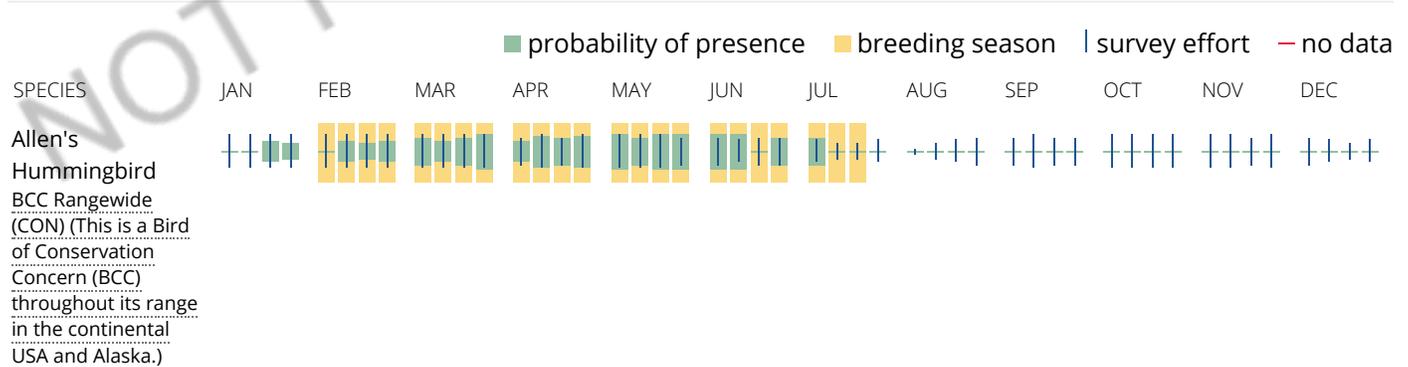
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

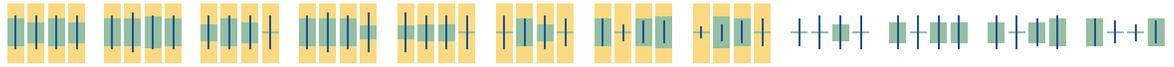
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



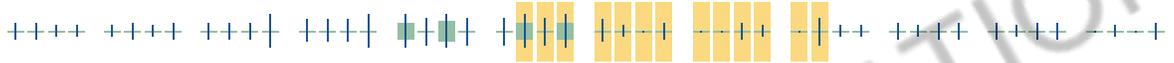
Bald Eagle
 Non-BCC Vulnerable
 (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



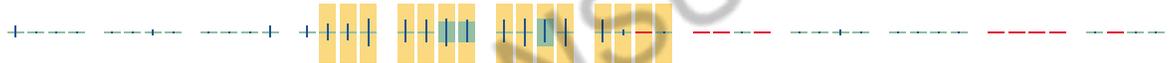
Black Skimmer
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



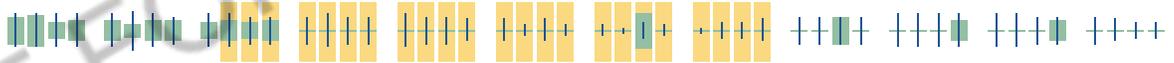
Black Swift
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



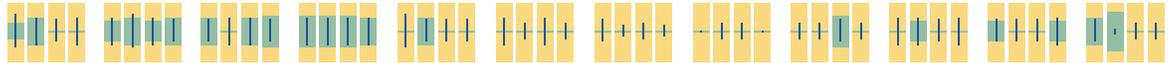
Black-chinned Sparrow
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



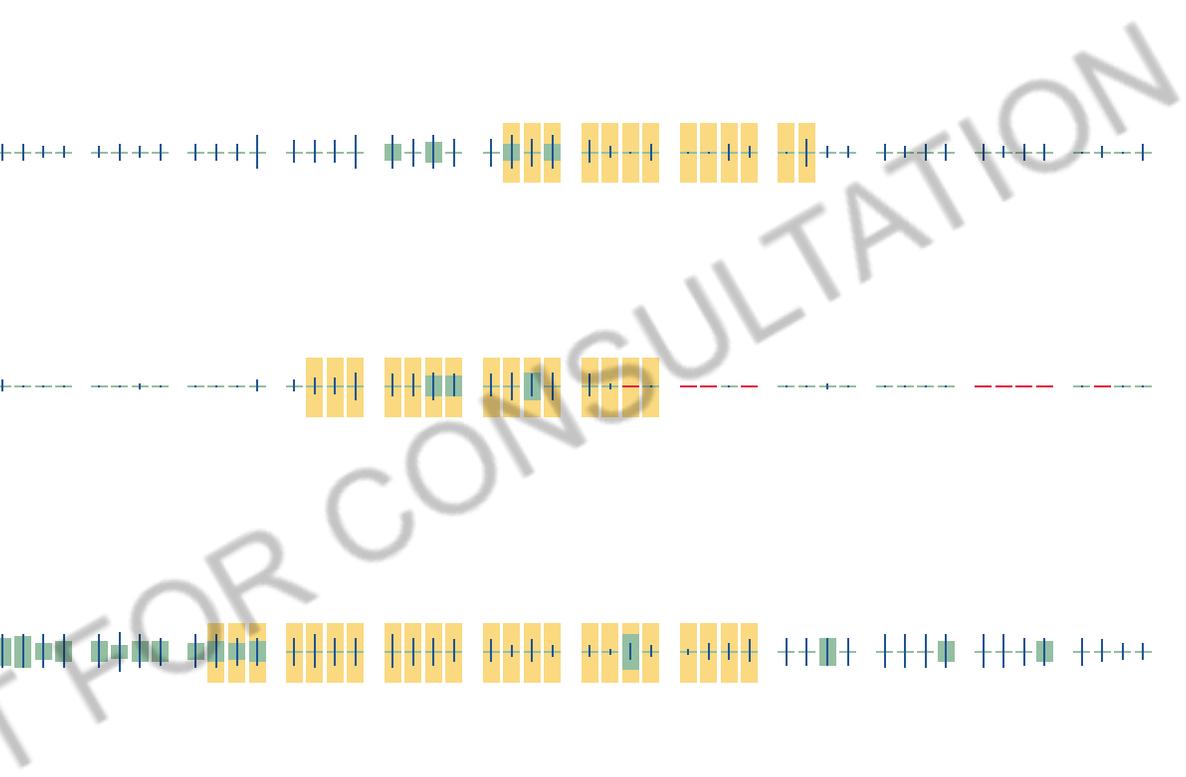
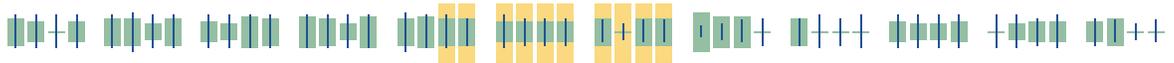
Burrowing Owl
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

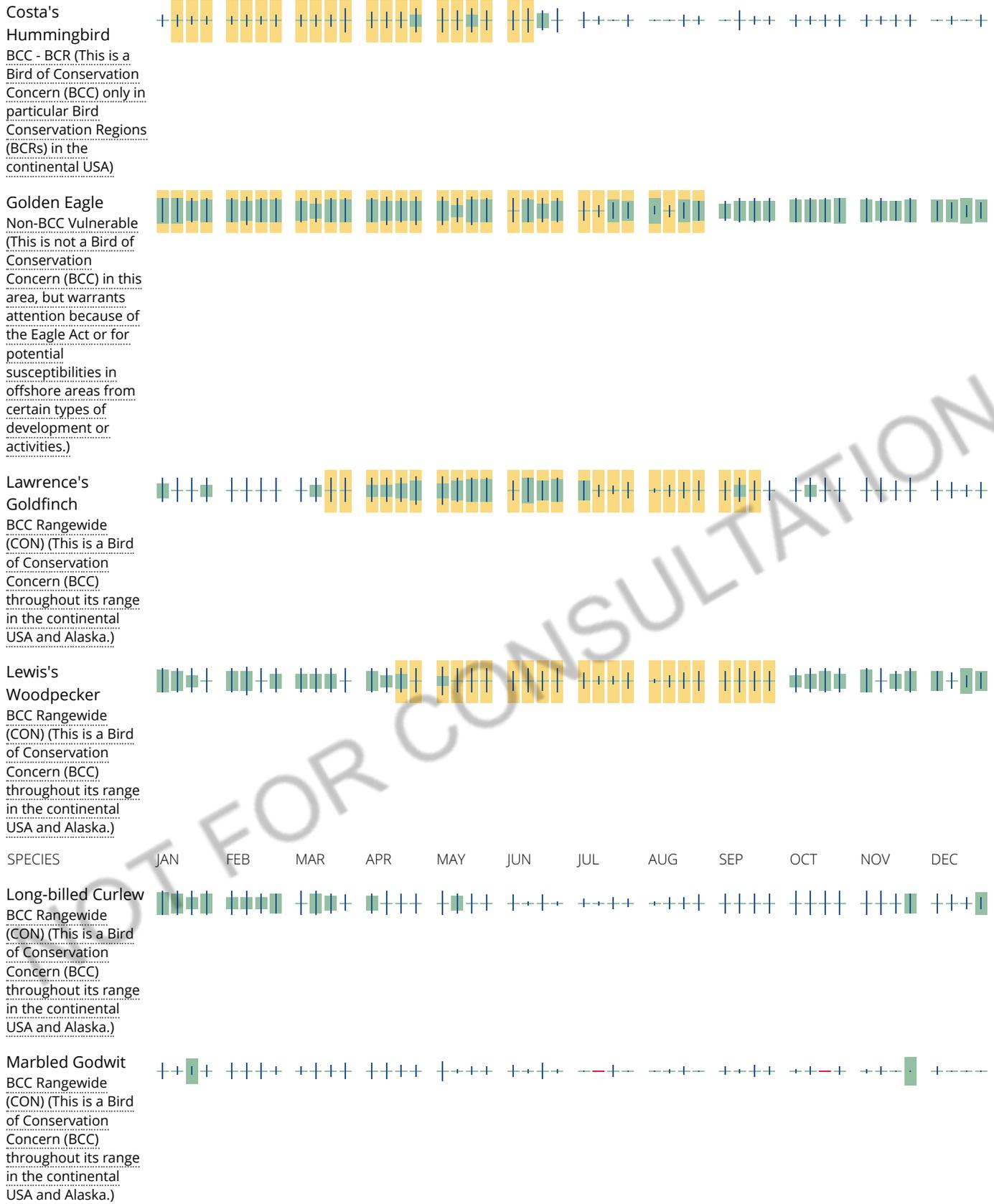


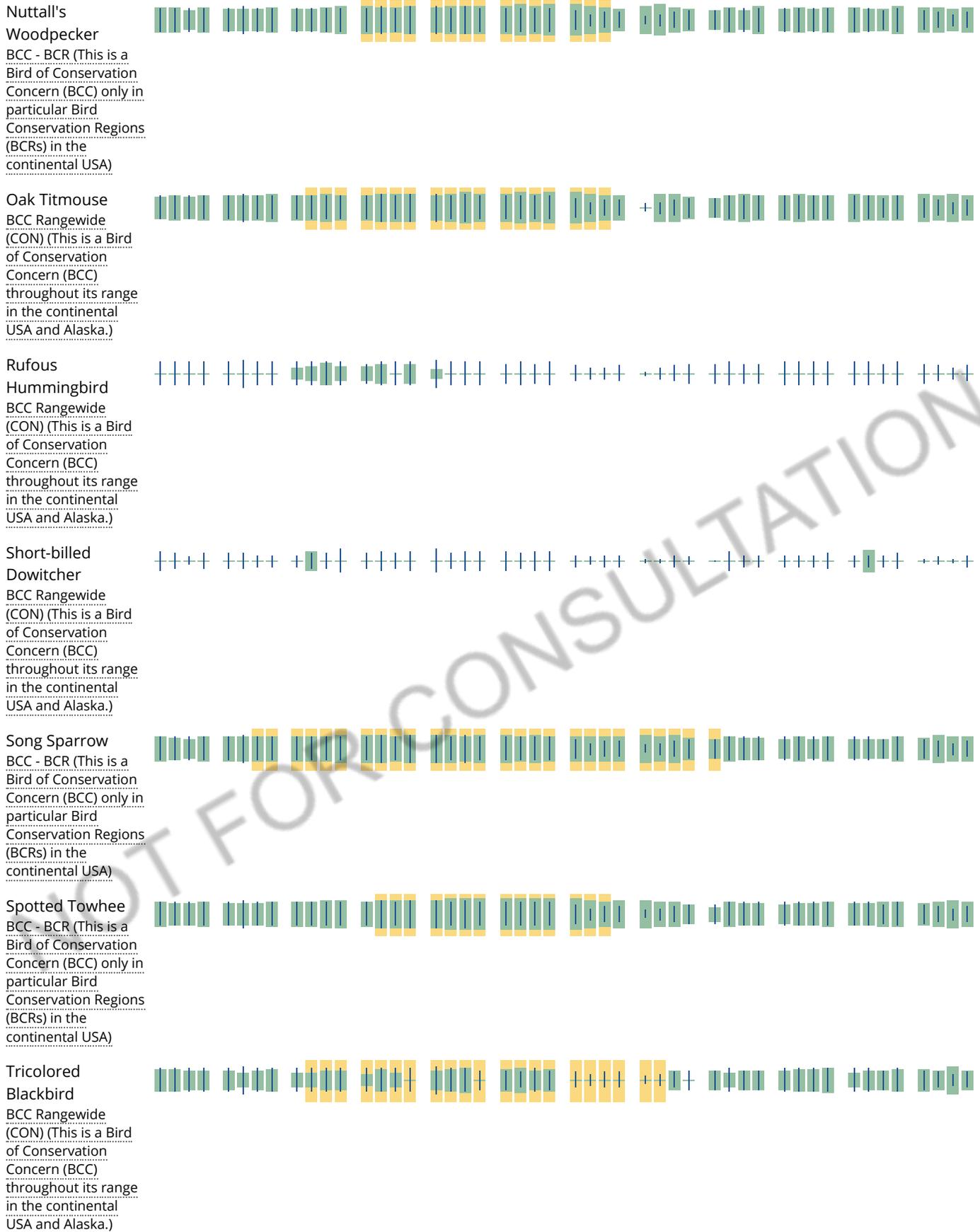
Clark's Grebe
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

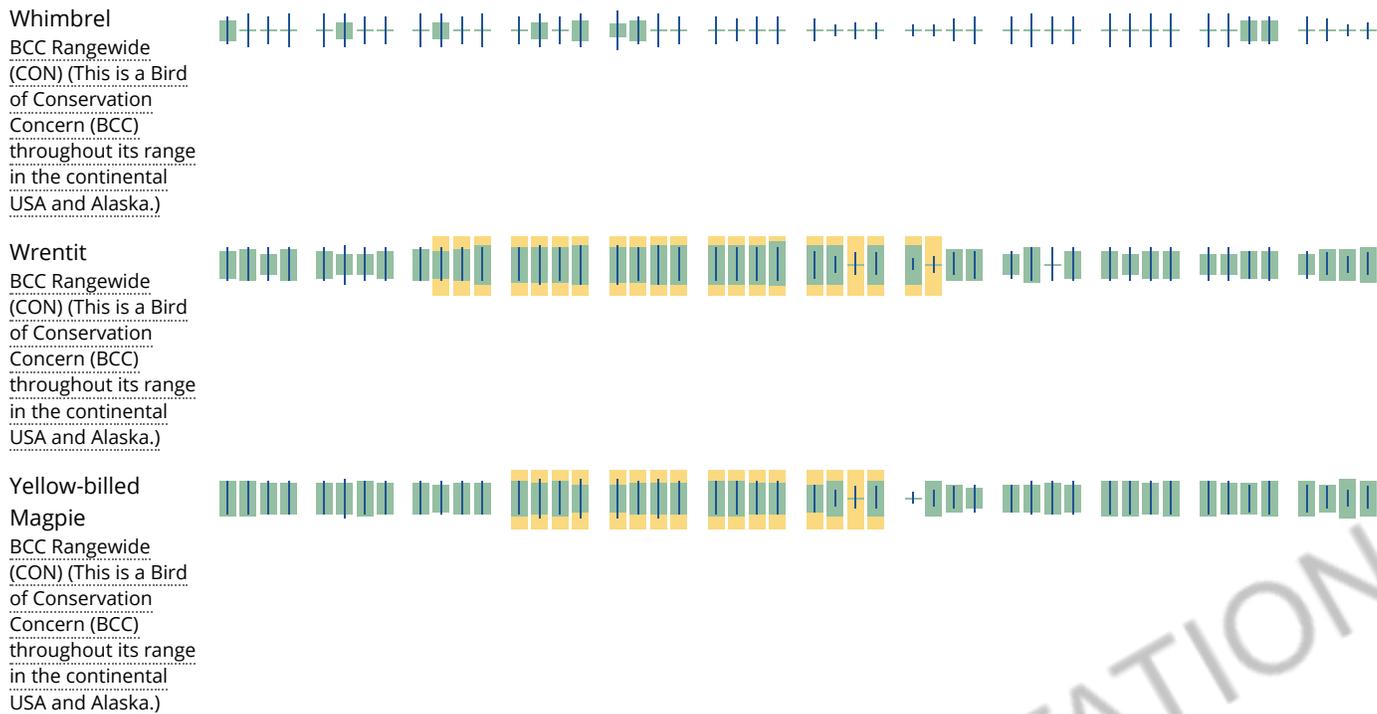


Common Yellowthroat
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)









Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look

carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

The area of this project is too large for IPaC to load all NWI wetlands in the area. The list below may be incomplete. Please contact the local U.S. Fish and Wildlife Service office or visit the [NWI map](#) for a full list.

FRESHWATER EMERGENT WETLAND

[PEM1Kx](#)
[PEM1Cx](#)
[PEM1A](#)
[PEM1C](#)
[PEM1B](#)
[PEM1Ad](#)
[PEM1Ax](#)
[PEM1Ch](#)
[PEM1Ah](#)
[PEM1Bx](#)
[PEM1Fh](#)
[PEM1F](#)
[PEM1Fx](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PFOA](#)
[PSSA](#)
[PSSC](#)
[PFOAh](#)
[PFOC](#)
[PSSCx](#)
[PFOCh](#)
[PSSCh](#)
[PFOAx](#)
[PSSAx](#)
[PFOB](#)
[PFOCx](#)
[PSSB](#)

FRESHWATER POND

[PUBHh](#)
[PUBKx](#)
[PUBHx](#)
[PUBFh](#)
[PUBFx](#)
[PUSKx](#)
[PUBH](#)
[PUSC](#)
[PUSCx](#)
[PUBF](#)
[PABHx](#)
[PABFx](#)
[PABH](#)
[PUSAh](#)
[PUSAx](#)
[PUSCh](#)
[PABFh](#)

[PABHh](#)

[PABF](#)

LAKE

[L1UBHh](#)

[L2USCh](#)

[L2UBKx](#)

RIVERINE

[R4SBC](#)

[R3UBH](#)

[R4SBA](#)

[R5UBFx](#)

[R4SBCx](#)

[R4SBAx](#)

[R3USC](#)

[R5UBF](#)

[R3UBF](#)

[R3USA](#)

[R3UBHx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in

activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION